



# Montgomery County Fire Rescue Service

## MCFRS Accredited Agency Status and Strategic and Master Planning Processes

FY2017 STRATEGIC PLAN  
FOR IMPLEMENTATION OF FIRE,  
RESCUE, EMERGENCY MEDICAL  
SERVICES AND COMMUNITY  
RISK REDUCTION MASTER PLAN  
PRIORITIES



*Scott Gutschick*  
FIRE CHIEF, SCOTT E. GUTSCHICK

PREPARED BY:  
SCOTT GUTSCHICK, MANAGER, PLANNING & ACCREDITATION SECTION



Center for  
Public Safety  
Excellence

2016-2022  
FIRE, RESCUE, EMERGENCY  
MEDICAL SERVICES AND  
COMMUNITY RISK REDUCTION  
MASTER PLAN



SEPTEMBER 30, 2015



Commission on  
Fire Accreditation  
International

Scott Gutschick, MCFRS Planning Manager  
Demetrios "Jim" Vlassopoulos, MCFRS Accreditation Manager





# MCFRS CFAI Accreditation



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## Welcome and Introductions



# MCFRS CFAI Accreditation: COPDI Course Objectives

- **Understanding the Impetus** for offering this class
- Short exposure to the **MCFRS Accreditation history**
- **CPSE and CFAI**
- Process of **becoming** an **accredited** Fire-Rescue department
- **Benefits** of achieving and maintaining accredited status
- Understanding the importance of **the Process...it's not a project**
- MCFRS Accreditation **documents, analysis, continuous organizational improvement** and **CFAI acronyms and terminologies**



# MCFRS CFAI Accreditation: Understanding the Impetus

A large, solid red heart with a thin black outline, positioned on the left side of the slide. It serves as a background for the word "Institutionalization!".

**Institutionalization!**

From the  
Recruit firefighter or new support staff employee  
to the  
Fire Chief

To incorporate into a structured and often highly formalized system

[Merriam-Webster.com](https://www.merriam-webster.com)





# MCFRS CFAI Accreditation: Understanding the Impetus

## Strategies for Institutionalizing the accreditation process into MCFRS

Exposure through the following means and continually working to link this process/business plan into every day MCFRS processes

- Accreditation Manager exposure: [Fire Chief's monthly video message](#)
- Master Firefighter and Lieutenant promotional exam
- Building a Self Assessment Manual team that includes Division Chiefs, DOCs, A/Cs, B/C Davis, B/C Frazier, Managers, Buddy Ey, Special Ops, other SMEs
- Offering CFAI courses to membership
- Notifying membership of accreditation updates via Information Bulletins
- COPDI
- Rookie classes



# MCFRS CFAI Accreditation History

- Began process in 2005
- First officially accredited in 2007 under Chief Carr
- Accreditation process again leading up to 2012 but MCFRS deferred for one year to fix issues through peer assessment recommendations
- MCFRS accredited again at FRI conference in Chicago in August 2013 under Chief Lohr
- December 2013 MCFRS hired accreditation manager contractor
- 12/31/14 Chief Lohr retires and Chief Goldstein continues support of maintaining MCFRS CFAI accreditation



# CPSE and CFAI Connection



Center for Public Safety  
Excellence (CPSE)

Non-profit 501(c)(3)  
corporation

Oversees Commission on Fire  
Accreditation International  
(CFAI)

Promotes fire service  
professional credentialing

- Chief Fire Office
- Chief EMS Officer
- Chief Training Officer
- Fire Marshal
- Fire Officer

The screenshot shows the CPSE website homepage. At the top is a dark blue header with the CPSE logo on the left, a red button that says "Visit Our Online Store >>", a search bar with "Search CPSE" and a red "Search" button, and links for "Contact Us" and "Site Map". Below the header is a navigation menu with links: "About CPSE", "Agency Accreditation", "Professional Credentialing", "Technical Advisor Program", "Workshops & Events", and "News". The main content area features a large banner image of three men in uniform with an American flag in the background. Overlaid on the banner is a red box with the text "Professional Credentialing:" and "Providing Guidance for Career Planning and Development". To the left of the banner is a sidebar with a "Join Our Mailing List" section containing an email input field and a "Next >" button. Below that is a "Search by Audience" section with a list of categories: "Fire & EMS Agencies", "Candidates for Professional Credentials", "City Managers", and "Elected Officials". At the bottom of the main content area, there is a "Welcome to the Center for Public Safety Excellence" section with a paragraph about CPSE's mission, and a "What's New" section with a blue header and a grey "Upcoming Events" header. The "What's New" section contains a globe icon and text about the 2017 Excellence Conference registration.

## CPSE Mission

The mission of the Center for Public Safety Excellence is "To lead the fire and emergency service to excellence through the continuous quality improvement process of accreditation, credentialing, and education."



# CPSE and CFAI Connection



Commission on Fire Accreditation International (CFAI) is governed by an 11-member commission representing a cross-section of the fire service industries:

Fire Departments, City and County Managers, Code Councils, US DOD, & IAFF



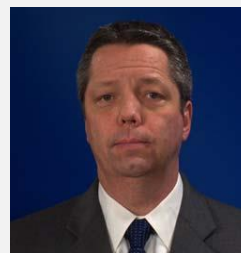
**Steven Westermann, CFO,**  
Commission Chair  
Representative: Fire Agencies  
pops of 25,000 - 99,999  
Fire Chief  
Central Jackson County (MO)



**Thomas Thompson,**  
CFO, Commission Vice-Chair  
Representative: U.S.  
Department of Defense  
Fire Chief  
USMC Camp Pendleton, CA



**James Bourey, Commissioner**  
Representative: ICMA  
County Manager  
City Manager  
Newport News, VA



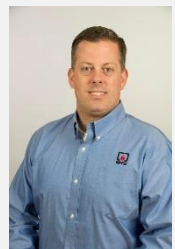
**Jim Brinkley, Commissioner**  
Representative: Labor  
Director, Department of  
Occupational Health & Safety  
IAFF Washington, DC



**Steve Dongworth,**  
Commissioner Representative:  
International  
Fire Chief, Calgary, Alberta



**Jon B. Hannan, CFO,**  
Commissioner: Fire Agencies  
Populations >250,000  
Fire Chief, Charlotte, NC



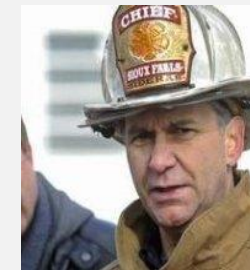
**Ken Holland, Commissioner**  
Representative: Consensus  
Standards: NFPA, Quincy, MA



**Kevin Kuntz, P.E. Commissioner**  
Rep. Insurance Industry  
Asst. V.P.: Risk Decision Services



**Steve Riley, ICMA-CM,**  
Commissioner, Representative:  
ICMA City Manager  
Town Manger: Hilton Head, SC



**James Sideras, CFO, CEMSO,**  
Commissioner Rep.: Fire  
Agencies pops: 100,000 - 249,000  
Fire Chief, Sioux Falls, SD





# CPSE and CFAI Connection



## What is "Accreditation"?

Accreditation is a comprehensive **self-assessment and evaluation model** that enables organizations to **examine past, current, and future service levels** and internal performance and compare them to **industry best practices**. This process leads to **improved service delivery**.

CPSE's Accreditation Program, administered by the Commission on Fire Accreditation International (CFAI) allows fire and emergency service agencies to **compare their performance to industry best practices** in order to:

- Determine community risk and safety needs and **develop community-specific Standards of Cover**.
- **Evaluate the performance** of the department.
- Establish a method for **achieving continuous organizational improvement**.

The screenshot displays the CPSE website's 'Agency Accreditation' page. The header features the CPSE logo, a 'Visit Our Online Store' button, and navigation links for 'About CPSE', 'Agency Accreditation', 'Professional Credentialing', 'Technical Advisor Program', 'Workshops & Events', and 'News'. A search bar is also present. The main content area is titled 'About Accreditation & CFAI' and includes a sub-header 'What is "Accreditation"?'. The text explains that accreditation is a self-assessment model for comparing service levels to industry best practices. It also mentions that CPSE's program is administered by CFAI. A list of three bullet points outlines the goals of the accreditation process: determining community risk and safety needs, evaluating department performance, and establishing a method for continuous improvement. The page concludes by noting that local government executives face pressure to justify expenditures and that the CFAI accreditation process provides a benchmark system for measuring service quality.

**CPSE**

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About CPSE Agency Accreditation Professional Credentialing Technical Advisor Program Workshops & Events News

Agency Accreditation

- ✖ About Accreditation & CFAI
- ✖ CFAI Commissioners
- ✖ List of Agencies
- ✖ The Benefits
- ✖ The Process
- ✖ The Cost
- ✖ Application Information

HOME >> Agency Accreditation >> About Accreditation & CFAI

### About Accreditation & CFAI

**What is "Accreditation"?**

Accreditation is a comprehensive self-assessment and evaluation model that enables organizations to examine past, current, and future service levels and internal performance and compare them to industry best practices. This process leads to improved service delivery.

CPSE's Accreditation Program, administered by the Commission on Fire Accreditation International (CFAI) allows fire and emergency service agencies to compare their performance to industry best practices in order to:

- Determine community risk and safety needs and develop community-specific Standards of Cover.
- Evaluate the performance of the department.
- Establish a method for achieving continuous organizational improvement.

Local government executives face increasing pressure to "do more with less" and justify their expenditures by demonstrating a direct link to improved or expanded services. Particularly for emergency services, local officials need criteria to assess professional performance and efficiency. The CFAI accreditation process provides a well-defined, internationally-recognized benchmark system to measure the quality of fire and emergency services.



# Process of becoming an accredited department



## What does it take to become an accredited Fire-Rescue department?

- The process involves four steps
  1. First, become a registered agency (\$570 fee); 3-years; access to network, FESSAM, etc
  2. Second, become an applicant agency (valid for 18 months for career & 24 months for agencies that are at least 90% volunteer); assigned a mentor for guidance & advice, SharePoint, etc.
  3. Third, become a candidate for accreditation (must cover costs associated with outside peer assessment team travel, lodging, food, etc.) and work on all the deliverables
  4. Fourth, achieve accreditation (or be denied or deferred by the Commission) The five-year maintenance fee for MCFRS (>1 million population) is \$13,200 and each year 1/5 of that or \$2650 is due



# Process of becoming an accredited department



Most of the work to try and achieve an accredited status is occurring during the second (applicant) and third (candidate) steps. The most in-depth and time consuming component is putting a team together to:

- Conduct an internal self assessment and write a Fire and Emergency Services Self Assessment Manual (FESSAM) by addressing **252 Performance Indicators (PI)** that are divided amongst **45 Criteria**, and fall under **10 high-level Categories**

**Of these 252 PI's, 86 are Core Competency Pass or Fails**

- Conduct a Community Risk Assessment (CRA), including fire and non-fire risks & create a Standards of Cover (SOC) document with benchmarks based on the CRA
- Produce a Strategic and/or Master Plan

More information on the FESSAM & CR/SOC will be included later



# Benefits of achieving and maintaining accreditation



- Validation that MCFRS is a world class public safety agency measured against the best of the best and through an internationally respected model
- CFAI Accreditation is recognized worldwide as a measure of high performance and organizational excellence in the fire service
- MCFRS has worked diligently to meet and exceed the most stringent industry standards and the highest benchmarks in public safety
- The self-assessment process identifies both the strengths and weaknesses of MCFRS and provides a blueprint for continuous self-improvement by addressing deficiencies and building upon the many organizational strengths and successes of the agency





# Benefits of achieving and maintaining accreditation



*“Our career and volunteer firefighters and emergency medical personnel are among the best in the nation, and this prestigious award is testament to that. To be evaluated against national standards and international best management practices successfully is a reflection of our commitment to providing the highest level of service to residents.”*

County Executive Isiah Leggett after MCFRS awarded CFAI Accreditation again in August of 2013



# Benefits of achieving and maintaining accreditation



## IAFF Formalizes Support for CFAI Accreditation Process

To solidify its support of the CFAI accreditation process, at their August 2016 Convention, the IAFF adopted Resolution No. 14, stating,

"RESOLVED that the IAFF support and promote the CFAI accreditation process noting that it is not a validation that any fire department is 'doing everything right' but that it is a continuous quality measurement system."

The resolution acknowledged that the CFAI accreditation process is a comprehensive self-assessment and evaluation model that enables agencies to examine past, current, and future services levels and internal performance and compare them to industry research. It went on to state that by conducting a community risk assessment, the agency can determine whether they have sufficient resources effectively deployed to address the risks documenting such in their standards of cover.

*Dr. Lori Moore-Merrell, Assistant to the General President,  
International Association of Fire Fighters*

*Pasted from CPSE October 2016 Newsletter: <http://www.cpse.org/portals/0/NewsletterOctober2016/newsletter.htm#article4>*





# Benefits of achieving and maintaining accreditation



*“The Accreditation process exposes your strengths and your weaknesses, but most importantly crystallizes how many different programs and areas of expertise which your agency is accountable for.”*

*– Tom Lenahan, Fire Chief, Burbank, CA.,  
Accredited Agency*





# Accreditation: It's a process not a project



Commission on  
Fire Accreditation  
International

Conduct an agency self-assessment against 252 performance indicators (PI) and write a self assessment manual documenting a MCFRS description, appraisal, plan, and references to each of these PIs

Defining & Assessing Risks

Document Area Characteristics

Current & Historic Deployment  
& Performance

Develop the Community Risk Assessment &  
Standards of Cover Document



Develop Strategic/Master Plan

All-Hazard Risk Assessment &  
Response Strategies

Plan for Maintaining & Improving  
Response Capabilities

Submit Annual Compliance  
Reports





# Accreditation: It's a process not a project



Commission on  
Fire Accreditation  
International

- Fire service accreditation through this internationally accepted business process is not easy to attain. There are currently only 220 fire departments accredited through CFAI.
- As the previous slide depicts, there are many tasks, analysis, and deliverables that must occur and/or be developed. Once all of this is completed an outside peer assessment team comes in to validate it all.
- Peer assessment team makes accreditation recommendation to CFAI. The Fire Chief, Accreditation Manager, and lead Peer Assessor sit in front of the Commission who will make ultimate decision.
- The SAM, CR/SOC, & Strategic & Master Plans need to be the agency's business plan that guides the fire department every day and into the future.
- Everything MCFRS does, and we do a lot, should be linked to each of the 252 performance indicators. The CR/SOC should be updated and referenced often and be a tool we use when trying to figure out how to better serve our community.



# Accreditation: It's a process not a project



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International

Shelving all of this work once it's finally completed and accreditation is awarded is treating the process as a project.

Routinely referencing all of the analysis to help make decisions, constantly updating risks, reviewing performance & mitigation strategies, & linking all MCFRS programs to the PIs is a PROCESS which guides us to excellence through continuous self improvement



# Accreditation: It's a process not a project



Commission on  
Fire Accreditation  
International

- “I like to think of the process as a living consultant’s report that stays on my desk to make sure we are focused on continual improvement.”
- “This assessment, the resulting report, and the data behind the report is our blueprint for the future.”
- “It is the foundation for previously established Strategic (annual) and Master (5-year) plans...”
- “...the future of the MCFRS belongs to all of us as stakeholders. Our future is squarely in our own hands; not the hands of consultants. In effect, we are the consultants using a rigorous, sustainable model that is regularly updated.”

**Chief Steve Lohr, retired, in an August 22, 2013 #FRS.all email after achieving accredited status**



# Accreditation: It's a process not a project



Commission on  
Fire Accreditation  
International

MCFRS is one of only 220 internationally-accredited fire-rescue agencies and currently (10/2016) the only fire department in the State of Maryland to maintain this coveted distinction

**MCFRS maintains the fourth-largest population protected among accredited agencies**

Department	Career/Combo	Population
Houston FD	Career	2,195,914
Miami-Dade Fire Rescue	Career	1,900,000
City of Calgary FD	Career	1,230,915
MCFRS	Combination	1,040,116
Honolulu FD	Career	976,376
Orange County Fire Rescue Department, FL	Career	961,492
Ottawa Fire Service	Combination	951,700
Columbus Division of Fire	Career	810,200





# Accreditation: Documents, Analysis, Acronyms, Terminologies

[Community Risk Analysis/Standards of Cover \(CRA/SOC\)](#)

[Fire and Emergency Services Self Assessment Manual \(FESSAM a.k.a SAM\)](#)  
Examples of 2013 FESSAM only

[Strategic](#) and [Master Plan](#)

[Annual Compliance Report](#)

[Frequently Asked MCFRS Accreditation Questions](#)

**MCFRS QUICKLINKS**  
(intended for internal use only) *Serving with **2** Courage, and **2***  
**Montgomery County Fire & Rescue Service - Montgomery County**

[MCFRS Home](#) [Email](#) [ePortal/MCtime](#) [Battalion Lineup](#) [Webs](#)

— Fire Chief

- Policies/Orders
  - Fire Chief General Orders
  - DFRS Policies and Procedures
  - MCFRS/FRC Policies and Procedures
  - Information Bulletins
  - Directives
  - Rescinded FCGO,P&P, Docs
  - Logo Standards
- Planning/Accreditation
  - Division & Section Goals/Objectives – June 2016 Update
  - Final Master Plan
  - FY2017 Approved Strategic Plan
  - 2013 Reaccreditation Report
  - 2013 Standard of Cover
  - 2016 Annual Compliance Report - Accreditation
  - 2016-08-15 Accreditation Frequently Asked Questions



# Accreditation: Documents, Analysis, Acronyms, Terminologies

## Understanding the MCFRS Accreditation Operational Programs Categorized by Risk

Low Risk (LR)	Moderate Risk (MR)	High Risk (HR)	Special Risk (SR)
<ul style="list-style-type: none"><li>•Automobile fires</li><li>•Brush, grass, leaf, field fire</li><li>•Outside trash, dumpster fires</li><li>•Outside transformer fire</li><li>•Home automatic or commercial fire alarms, local alarm bells</li><li>•Outside natural gas leaks &amp; small fuel spills</li><li>•Outside electrical short circuit</li><li>•Citizen lock-out with hazard (food on stove, baby locked inside, etc.)</li><li>•Outside smoke or odor investigation</li><li>•Stalled elevator with people on board</li><li>•BLS EMS responses including BLS motor vehicle crash</li><li>•Metrorail arcing insulator issue</li><li>•Public service call (performance not measured)</li></ul> <p>Examples:</p> <ul style="list-style-type: none"><li>○Assist citizen off the floor</li><li>○Water leaking from an above apartment</li><li>○Citizen lock-in</li><li>○Tree down blocking the roadway</li><li>○CO alarm with asymptomatic patients</li></ul>	<ul style="list-style-type: none"><li>•Inside contained appliance fire (dryer, oven, etc.)</li><li>•Report of light smoke in a building</li><li>•Inside odor of smoke</li><li>•Inside natural gas leak</li><li>•Inside electrical short circuit</li><li>•Detached shed fire</li><li>•Large vehicle fire</li><li>•Malfunctioning furnace</li><li>•ALS1 EMS incidents including ALS1 MV Crash with or without reported entrapment</li><li>•Bomb Squad moderate risk responses including suspicious and unattended packages</li><li>•Hazmat releases not involving fire; including white powder responses</li><li>•Inland water/ice emergency; not including swimming pool, bathtub, etc.</li></ul>	<ul style="list-style-type: none"><li>•Smoke in a house, building, school, non-high-rise apartment, garage, barn, etc.</li><li>•Reported fire in a house, building, school, non-high-rise apartment, garage, barn, etc.</li><li>•Report of a small airplane (4 or &lt; soles) on fire or crashed anywhere (ARFF)</li><li>•ALS2 EMS incidents including ALS2 MV Crash with or without reported entrapment</li><li>•Bomb Squad high risk responses including creditable suspicious and unattended packages/devices</li><li>•Reported train/metrorail crash/derailment/fire</li><li>•Hazmat inhalation emergencies including CO alarms with symptomatic patients</li><li>•Stillwater Potomac River emergencies or incidents involving White's Ferry</li></ul>	<ul style="list-style-type: none"><li>•Report of a large airplane (5 or &gt; soles) on fire or crashed anywhere (ARFF)</li><li>•Bomb Squad special risk responses including confirmed explosive device incidents</li><li>•Smoke in a house, building, school, apartment, garage, barn, etc. in a non-hydranted box area</li><li>•Reported fire in a house, building, school, apartment, garage, barn, etc. in a non-hydranted box area</li><li>•Reported smoke or fire in a high-rise building, apartment, office, etc.</li><li>•Hazmat box alarms for a report of a building fire involving hazmat or a 2-inch or &gt; high pressure natural gas line break; outside or inside</li><li>•All technical rescue responses</li><li>•Swiftwater Potomac River emergencies</li></ul>



# Accreditation: Documents, Analysis, Acronyms, Terminologies

## Understanding the MCFRS Accreditation Operational Programs – **DISTRIBUTION**

Accreditation Program	Risk	1st Unit to Arrive of any of the Following Unit Types
ALS1	MR	Paramedic (AFRA, Medic, Chase Car/Unit, EMS Supervisor)
ALS2	HR	Paramedic (AFRA, Medic, Chase Car/Unit, EMS Supervisor)
BLS	LR	Any Unit
Fire Full Assignment (FFA)	HR	Engine
FFA-Highrise (FFA-SRHR)	SR	Engine
FFA-Non-hydranted Area	SR	Engine
Adaptive-1F (A1F)	LR	Engine
Adaptive-1N (A1N)	LR	Eng., Brush, Tanker, Aerial, RS, HM, Utility
Adaptive-2-3 (A2-3)	MR	Engine, Aerial, RS, Chief
Hazmat Low Risk (HM-LR)	LR	Performance not measured but incidents are counted as hazmat
Hazmat Moderate Risk (HM-MR)	MR	Eng., Aerial, RS, Chief, EMSS, Medic, Amb., HM, SAFO, Tanker, Brush
Hazmat High Risk (HM-HR)	HR	Eng., Aerial, RS, Chief, EMSS, Medic, Amb., HM, SAFO, Tanker, Brush
Hazmat Special Risk (HM-SR)	SR	Eng., Aerial, RS, Chief, EMSS, Medic, Amb., HM, SAFO, Tanker, Brush
Technical Rescue (TR-SR)	SR	Eng., Aerial, RS, Chief, EMSS, Medic, Amb., HM, SAFO, Tanker, Brush
Water/Ice Rescue Moderate (WIR-MR)	MR	Eng., Aerial, RS, Chief, EMSS, Medic, Amb., HM, SAFO, Tanker, Brush
Water/Ice Rescue High (WIR-HR)	HR	Eng., Aerial, RS, Chief, EMSS, Medic, Amb., HM, SAFO, Tanker, Brush
Water/Ice Rescue Special (WIR-SR)	SR	Eng., Aerial, RS, Chief, EMSS, Medic, Amb., HM, SAFO, Tanker, Brush
ARFF High Risk (ARF-HR)	HR	Eng., Aerial, RS, Chief, EMSS, Medic, Amb., HM, SAFO, Tanker, Brush
ARFF Special Risk (ARF-SR)	SR	Eng., Aerial, RS, Chief, EMSS, Medic, Amb., HM, SAFO, Tanker, Brush
Bomb Squad Moderate Risk (BS-MR)	MR	FM, BU700
Bomb Squad High Risk (BS-HR)	HR	FM, BU700, Engine, Aerial, RS, Ambulance, Medic
Bomb Squad Special Risk (BS-SR)	SR	FM, BU700, Engine, Aerial, RS, Ambulance, Medic, HM, Chief

Distribution: Geographic location of all first-due resources for initial intervention. Generally measured from fixed response points, such as fire stations, and expressed as a measure of time.

In other words: First arriving unit



# Accreditation: Documents, Analysis, Acronyms, Terminologies

## Understanding the MCFRS Accreditation Operational Programs – **CONCENTRATION**

Accreditation Program	Risk	Last Unit Arriving of Predetermined Package of Units
ALS1	MR	Medic & Manpower unit or AFRA & Amb. Or AFRA & Medic, etc. etc.
ALS2	HR	Medic & AFRA or 2 AFRAs & Amb. Or Medic & EMS Supervisor & Manpower or AFRA & Chase Unit & Amb, etc. etc.
BLS	LR	Ambulance or Medic Unit
Fire Full Assignment (FFA)	HR	5-Engines; 2-Aerials; 1-RS; 2-Chiefs; 1 Transport Unit (BLS or ALS)
FFA-Highrise (FFA-SRHR)	SR	5-Engines; 3-Aerials; 1-RS; 2-Chiefs; 1 Transport Unit (BLS or ALS)
FFA-Non-hydranted Area	SR	5-Engines; 2-Aerials; 1-RS; 2-Chiefs; 1 Transport Unit ; 3-Tankers
Adaptive-1F (A1F)	LR	ERF not measured for A1F incidents – only 1 <sup>st</sup> arriving engine measured
Adaptive-1N (A1N)	LR	ERF not measured for A1N incidents – only 1 <sup>st</sup> arriving unit measured
Adaptive-2-3 (A2-3)	MR	2-Engines; 1-Special Service
Hazmat Low Risk (HM-LR)	LR	Performance not measured but incidents are counted as hazmat
Hazmat Moderate Risk (HM-MR)	MR	1-Engine; 1-Special Service; 1-Chief; 1-Ambulance; 1-Medic; 1-Hazmat
Hazmat High Risk (HM-HR)	HR	3-Engines; 1-Aerial; 1-RS; 1-Chief; 2-Transport Units; 1-Hazmat
Hazmat Special Risk (HM-SR)	SR	5-Engines; 2-Aerials; 1-RS; 1-Chief; 1-Transport Unit; 1-Hazmat
Technical Rescue (TR-SR)	SR	1-Engine; 1-Aerial; 1-RS; 1-Chief; 1-Ambulance; 1-Medic; 1-TR700
Water/Ice Rescue Moderate (WIR-MR)	MR	1-Manpower Piece; 1-Chief; 1-Transport Unit; 1-Boat
Water/Ice Rescue High (WIR-HR)	HR	1-Manpower Piece; 1-Chief; 1-Transport Unit; 2-Boats
Water/Ice Rescue Special (WIR-SR)	SR	1-Manpower Piece; 1-Chief; 1-Ambulance; 1-Medic; 4-Swift Water Boats
ARFF High Risk (ARF-HR)	HR	3-Engines; 1-Aerial; 1-RS; 1-Chief; 2-Transport Units; 1-Hazmat
ARFF Special Risk (ARF-SR)	SR	5-Engines; 2-Aerials; 1-RS; 1-Chief; 1-Transport Unit; 1-Hazmat
Bomb Squad Moderate Risk (BS-MR)	MR	2-Fire Marshals or 1-FM & BU700
Bomb Squad High Risk (BS-HR)	HR	2-Fire Marshals or 1-FM & BU700; 1-Manpower Piece or 1-Transport Unit
Bomb Squad Special Risk (BS-SR)	SR	2-Fire Marshals or 1-FM & BU700; 1-Hazmat or 1-FM; 1-BU700; 1-Manpower Piece; 1-Chief; 1-Transport Unit

Concentration: Spacing of multiple resources arranged so that an initial “effective response force” (ERF) can arrive on-scene within the time frames outlined in the on-scene performance expectations.

In other words: For MCFRS our ERF has been determined within our CR/SOC as is measured when the last unit arrives of a pre-determined compliment of units.





# Accreditation: Documents, Analysis, Acronyms, Terminologies

Before continuing with our operational performance response time analysis for Distribution (first-due) and Concentration (ERF) we need to understand the requirement to measure each part of the response time continuum

The first thing we need to understand are the definitions for  
BASELINE and BENCHMARK

**Baseline**: The measurement of actual performance in an organizational context; usually an initial set of crucial observations or data used for comparison or control. What MCFRS is doing today and over the past several years – our actual performance

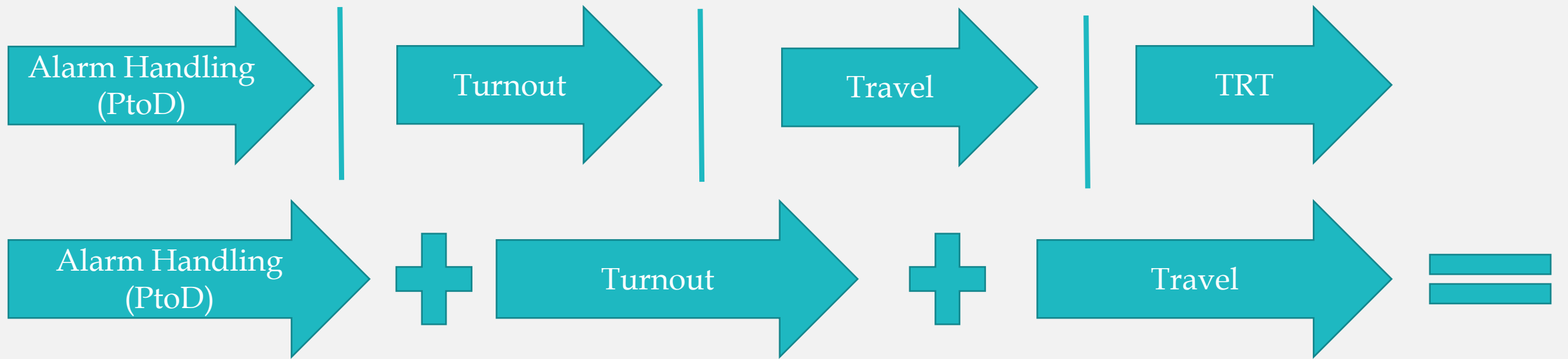
**Benchmark**: Defined as a quality standard or target from which something can be judged which help define superior performance or a product, service, or process. Where we strive to be...a goal, in terms of first unit and ERF response time performance – some are defined by NFPA



# Accreditation: Documents, Analysis, Acronyms, Terminologies

## Response Time Continuum

All measured individually at the 90<sup>th</sup> percentile fractile (not average)



## Total Response Time (TRT)



# Accreditation: Documents, Analysis, Acronyms, Terminologies

Example of actual MCFRS **Total Response Time for the ERF** for these programs all measured at the 90<sup>th</sup> percentile fractile for each FY and aggregated between FY13-FY16 and by population density zones

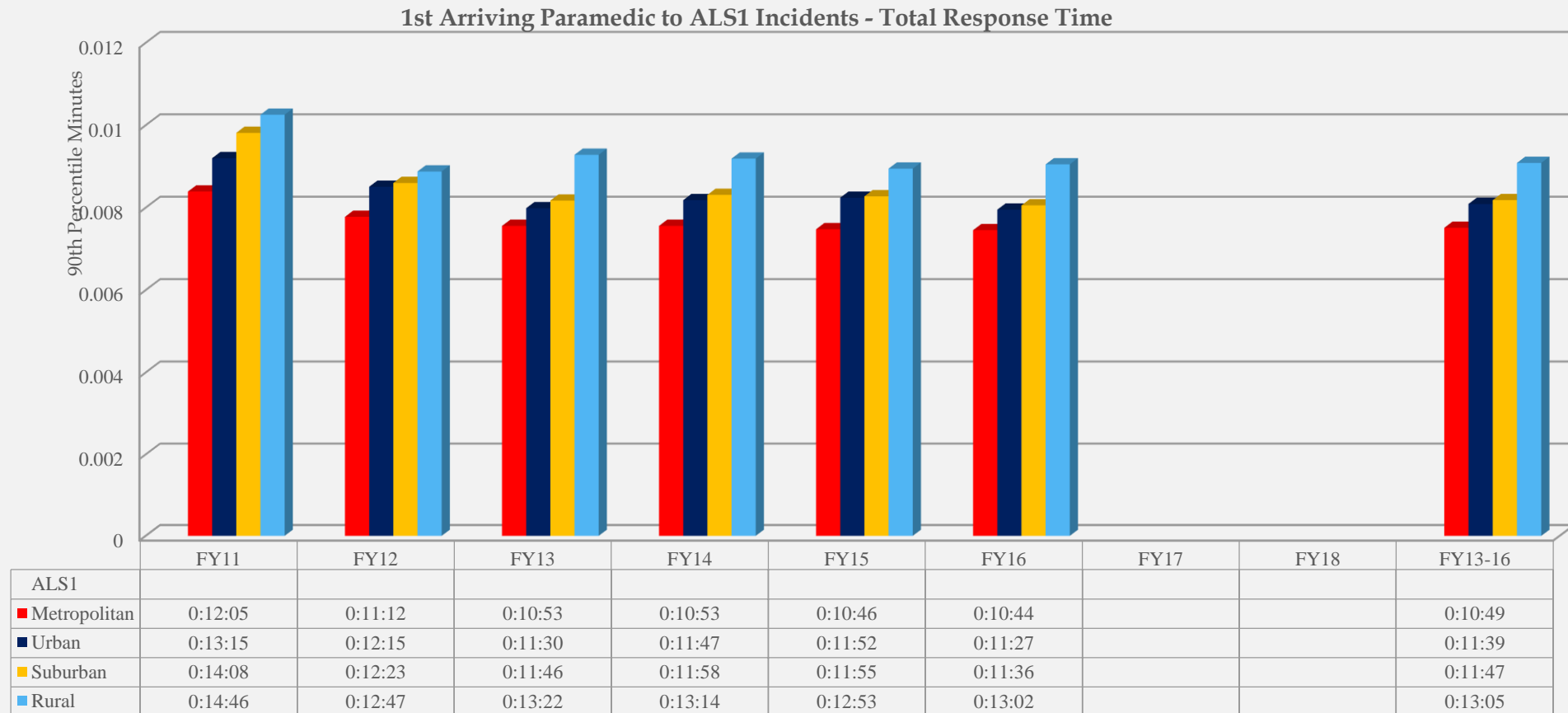
Highlights represent very long performance times...**Upgrades and/or AOS outliers?**

Program	FY11	FY12	FY13	FY14	FY15	FY16	FY12-16
Adaptive 2-3 (A2-3)							
Metropolitan	0:13:25	0:13:27	0:12:59	0:12:58	0:12:54	0:12:33	0:13:00
Urban	0:11:41	0:15:54	0:11:46	0:12:40	0:14:08	0:11:13	0:12:23
Suburban	0:13:29	0:15:40	0:14:58	0:15:27	0:14:36	0:14:19	0:14:56
Rural	0:17:03	0:15:48	0:15:05	0:16:13	0:17:44	0:16:24	0:16:21
Hazmat - Moderate Risk							
Metropolitan	0:33:44	0:26:49	0:28:30	0:23:39	0:36:16	0:24:34	0:30:08
Urban	N/A	N/A	N/A	0:31:30	0:32:02	N/A	0:32:02
Suburban	N/A	0:54:41	0:27:05	N/A	0:23:19	N/A	0:54:41
Rural	N/A	0:26:16	0:36:11	0:25:51	0:46:27	N/A	0:46:27
Hazmat – High Risk							
Metropolitan	0:26:32	0:24:08	0:31:35	0:33:33	0:27:51	0:33:21	0:29:29
Urban	N/A	0:18:22	0:33:39	0:25:38	0:17:48	N/A	0:33:49
Suburban	0:54:24	0:34:28	0:16:55	N/A	0:27:06	0:14:19	0:54:24
Rural	0:20:31	N/A	0:40:35	0:28:09	0:33:10	0:35:02	0:37:42

Program	FY11	FY12	FY13	FY14	FY15	FY16	FY12-16
ALS1							
Metropolitan	0:12:44	0:12:27	0:12:32	0:12:21	0:12:09	0:12:13	0:12:21
Urban	0:13:34	0:12:31	0:12:44	0:13:10	0:13:13	0:12:38	0:12:56
Suburban	0:14:27	0:13:41	0:13:50	0:13:56	0:13:25	0:13:22	0:13:42
Rural	0:15:08	0:14:26	0:14:35	0:14:29	0:14:24	0:14:19	0:14:29
ALS2							
Metropolitan	0:12:08	0:12:03	0:11:58	0:12:03	0:11:50	0:11:37	0:11:55
Urban	0:12:40	0:12:23	0:13:17	0:12:07	0:13:44	0:16:56	0:13:17
Suburban	0:13:32	0:13:49	0:12:21	0:13:32	0:13:00	0:12:35	0:12:56
Rural	0:13:35	0:14:31	0:14:18	0:13:57	0:14:34	0:13:35	0:14:04
Fire-Full Assignment - Hydranted							
Metropolitan	0:22:37	0:26:47	0:24:26	0:24:53	0:22:17	0:22:38	0:24:00
Urban	0:15:22	0:37:08	0:23:28	0:44:50	0:21:52	0:44:14	0:35:52
Suburban	0:26:05	0:22:05	0:37:45	0:26:05	0:26:58	0:24:01	0:26:29
Rural	0:24:43	0:26:56	0:34:38	0:29:54	0:32:25	0:35:36	0:30:20



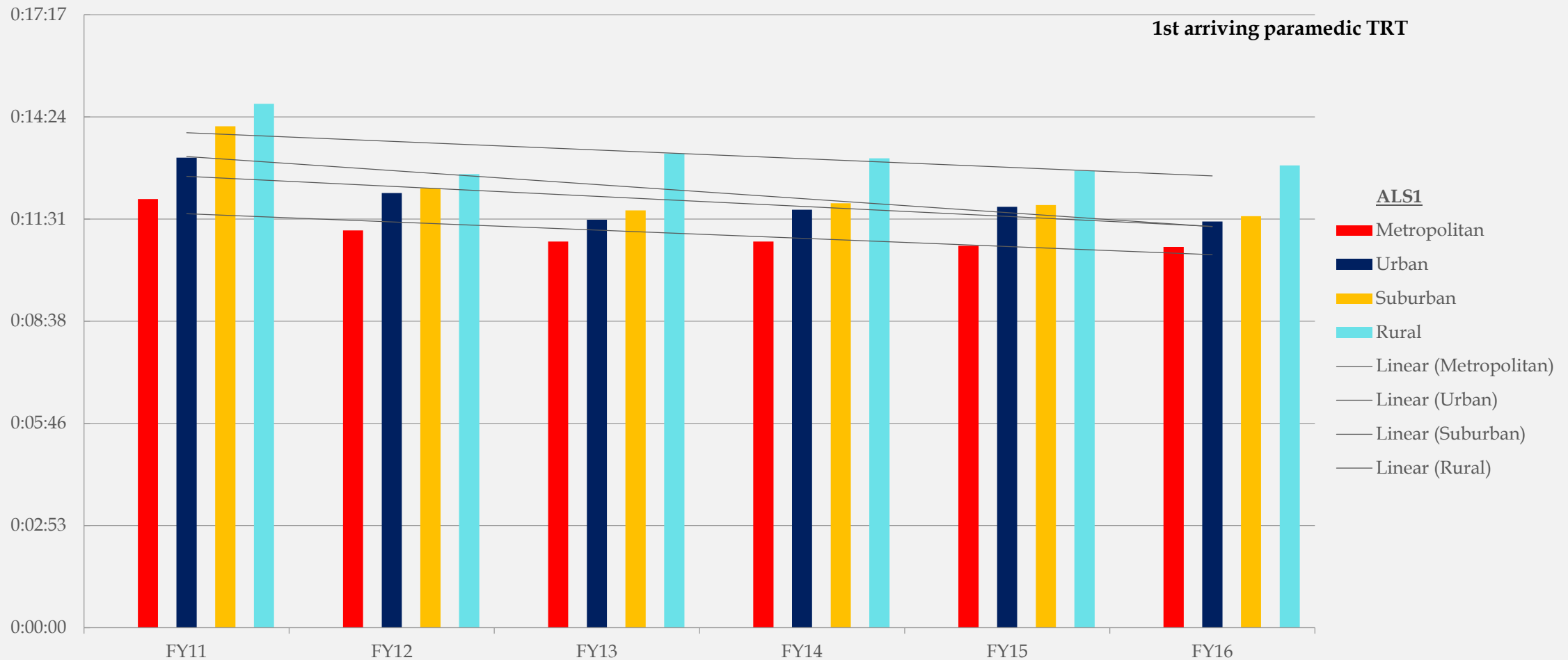
# Accreditation: Documents, Analysis, Acronyms, Terminologies





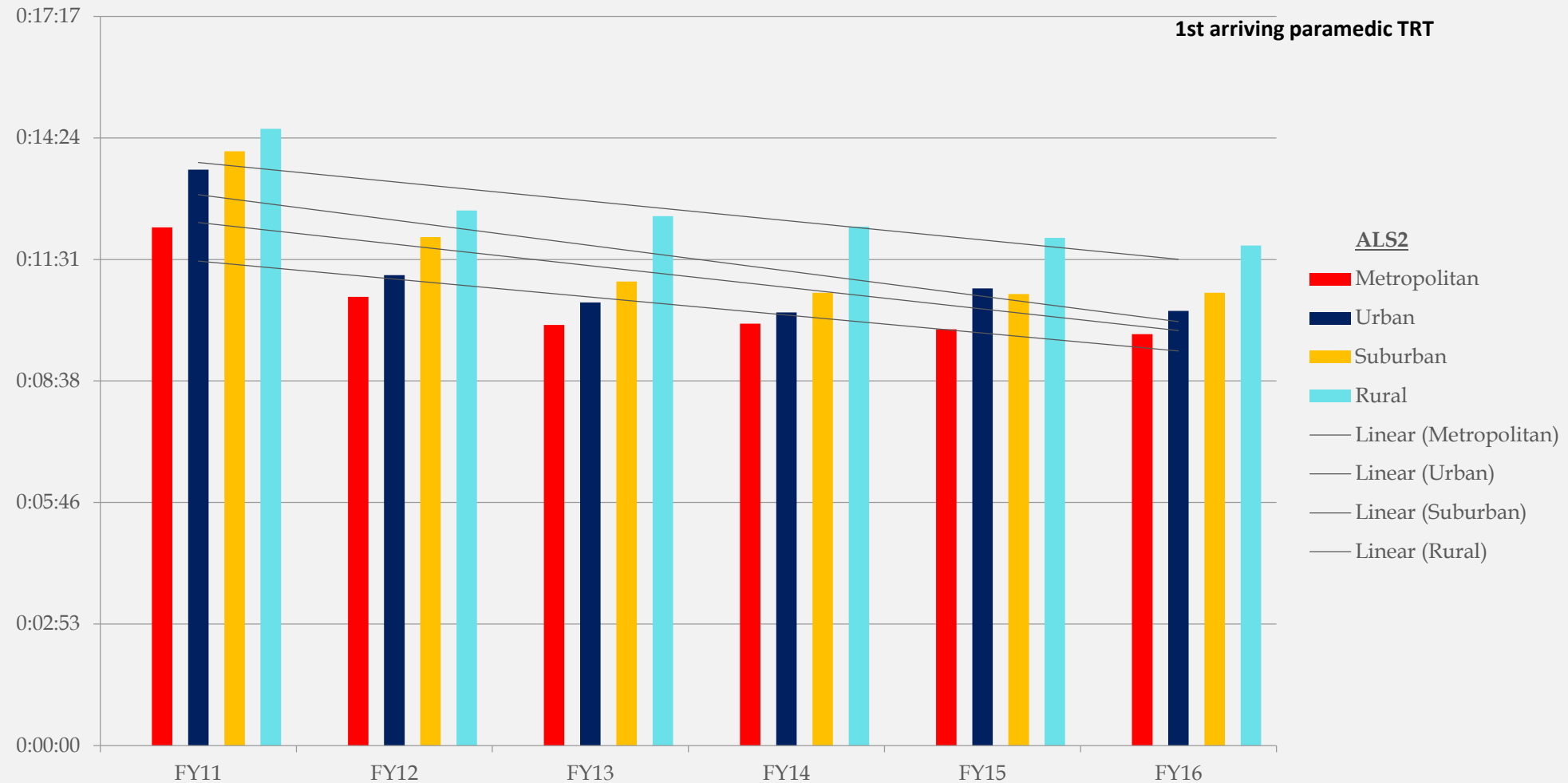


# Accreditation: Documents, Analysis, Acronyms, Terminologies





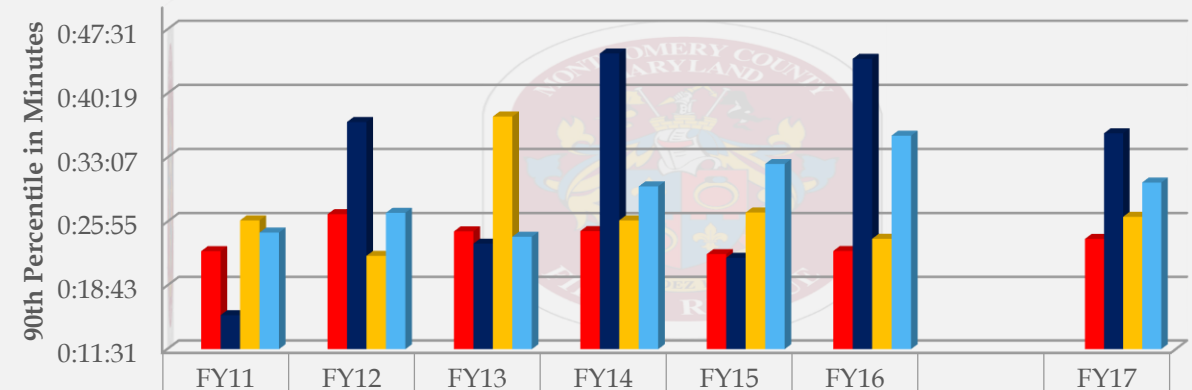
# Accreditation: Documents, Analysis, Acronyms, Terminologies





# Accreditation: Documents, Analysis, Acronyms, Terminologies

We have horrible performance in the Urban Zone!



Fire Full Assignment								
Metropolitan	0:22:37	0:26:47	0:24:51	0:24:53	0:22:17	0:22:38		0:24:00
Urban	0:15:22	0:37:08	0:23:28	0:44:50	0:21:52	0:44:14		0:35:52
Suburban	0:26:05	0:22:05	0:37:45	0:26:05	0:26:58	0:24:01		0:26:29
Rural	0:24:43	0:26:56	0:24:15	0:29:54	0:32:25	0:35:36		0:30:20

So I know what you're thinking...







# Accreditation: Documents, Analysis, Acronyms, Terminologies

## 5.2.4 Deployment.

### 5.2.4.1 Single-Family Dwelling Initial Full Alarm Assignment Capability.

5.2.4.1.1\* The initial full alarm assignment to a structure fire in a typical 2000 ft<sup>2</sup> (186 m<sup>2</sup>), two-story single-family dwelling

without basement and with no exposures shall provide for the following:

- (1) Establishment of incident command outside of the hazard area for the overall coordination and direction of the initial full alarm assignment with a minimum of one member dedicated to this task
- (2) Establishment of an uninterrupted water supply of a minimum of 400 gpm (1520 L/min) for 30 minutes with supply line(s) maintained by an operator
- (3) Establishment of an effective water flow application rate of 300 gpm (1140 L/min) from two handlines, each of which has a minimum flow rate of 100 gpm (380 L/min) with each handline operated by a minimum of two members to effectively and safely maintain the line
- (4) Provision of one support member for each attack and backup line deployed to provide hydrant hookup and to assist in laying of hose lines, utility control, and forcible entry
- (5) Provision of at least one victim search and rescue team with each such team consisting of a minimum of two members
- (6) Provision of at least one team, consisting of a minimum of two members, to raise ground ladders and perform ventilation
- (7) If an aerial device is used in operations, one member to function as an aerial operator to maintain primary control of the aerial device at all times
- (8) Establishment of an IRIC consisting of a minimum of two properly equipped and trained members

14 or  
15 FFs

## ISO In the House

MCFRS will be attempting to provide accurate data for the following NFPA 1710 based questions from ISO:

1. Does your fire department have a standard of cover or deployment analysis based on the criteria of NFPA 1710?
2. If yes, what is your fire department's demonstrated ability for travel times?
3. What is the total number of structural fire calls?
4. What is the number of calls for the first arriving engine company within 320 seconds? (Includes 240 seconds for travel and 80 seconds for donning gear)
5. What is the number of calls for the balance of the full alarm assignment within 560 seconds? (Includes 480 seconds for travel and 80 seconds for donning gear)



# Accreditation: Documents, Analysis, Acronyms, Terminologies

Using these same Groupings (FFA, FFA\_SRHR, FFA\_NH) what is the last unit to arrive **travel time** only, COUNTYWIDE and at the 90<sup>th</sup> percentile fractile, to the total of these incidents for the following possible unit packages. When the last unit of one of these packages arrives the measure shall stop for that one incident. When one unit is missing from any of these packages the measure will not be used.

- [3 Primary Unit Type Engine] **and** [1 Primary Unit Type Aerial **or** Rescue Squad] **and** [1 Primary Unit Type Chief] **OR**
- [2 Primary Unit Type Engine] **and** [2 Primary Unit Type Aerial **or** 1 Aerial **and** Rescue Squad] **and** [1 Primary Unit Type Chief] **OR**
- [2 Primary Unit Type Engine] **and** [1 Primary Unit Type Aerial **or** Rescue Squad] **and** [1 Primary Unit Type Chief] **and** [1 Primary Unit Type Ambulance **or** Secondary Unit Type Medic] **OR**
- [3 Primary Unit Type Engine] **and** [1 Primary Unit Type Chief] **and** [1 Primary Unit Type Ambulance **or** Secondary Unit Type Medic]

This analysis has been requested of the MCFRS data team in an effort to measure MCFRS performance against the MINIMUM NFPA 1710 benchmark times for assembling an ERF for a 2000 sq.ft. detached structure fire without a basement. This is also one of the ISO questions.

These algorithms are based on an engine staffing of four



THANK YOU FOR YOUR TIME & ATTENTION!

Questions?

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